

Appl. No. 10/802,339
Response Dated January 5, 2006
Reply to Office action of November 9, 2005

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REMARKS

Claims 1-9, 11-18, 32 and 33 remain pending in the above-identified application and have been rejected. Claims 19-21 and 34-35 have been canceled, and claim 1 has been amended.

Claims 1, 5, 6, 13 and 32 stand rejected under 35 U.S.C. §102(b) as being anticipated by Chen. Claim 1 has been amended.

Claim 1, from which claims 5, 6, 13 and 32 depend, recites a thermistor probe assembly that includes, among other things, "a thermistor element", "a positioning device for positioning the thermistor element at a pre-determined location within the assembly" and "a moisture proof shield disposed to encapsulate the thermistor element and the positioning device, wherein the moisture proof shield comprises a surface energy enhancing material."

The Office action states that Chen discloses a thermistor element, a positioning device and a moisture proof shield. The Office action further states that the moisture proof shield of Chen is disposed to cover the element and the positioning device. Chen may indeed show a moisture proof shield that covers both an element and a positioning device consistent with how the term "cover" may be defined. Applicant respectfully submits that "cover" as utilized in the claims is more akin to encapsulation of the element and positioning device than merely indicating a location of the shield relative to the element and positioning device. Chen shows the epoxy 23 surrounding the sensor 24 and within and located over a portion of the tubular metal sleeve 30. Chen fails to teach or suggest that the epoxy 23 covers, as in encapsulates, the tubular metal sleeve 30. Applicant has amended claim 1 to more clearly indicate the scope of the invention being sought.

Claims 1-3, 5-7, 9, 11, 13, 14, 16 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shibayama in view of Chen.

As noted above, claim 1 has been amended and now recites a thermistor probe assembly that includes, among other things, "a thermistor element", "a positioning device for positioning the thermistor element at a pre-determined location within the assembly" and "a moisture proof shield disposed to encapsulate the thermistor element and the positioning device, wherein the moisture proof shield comprises a surface energy enhancing material." Claims 2, 3, 5-7, 9, 11, 13, 14, 16 and 32

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depend from claim 1.

Chen fails to teach or suggest "a moisture proof shield disposed to encapsulate the thermistor element and the positioning device, wherein the moisture proof shield comprises a surface energy enhancing material" as recited in claim 1. As noted above, Chen shows the epoxy 23 surrounding the sensor 24 and within and over a portion of the tubular metal sleeve 30. Chen fails to teach or suggest that the epoxy 23 encapsulates the tubular metal sleeve 30.

The Office action states that Shibayama does not disclose the assembly comprising a positioning device for positioning the element at a predetermined central location within the assembly, and a moisture proof shield to cover the element and the positioning device, and therefore Shibayama adds no relevant teaching to Chen as regarding "the moisture proof shield that encapsulates the thermistor element and the positioning device" as recited in claim 1.

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shibayama and Chen in further view of Nimmerger. Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shibayama and Chen in further view of Krohn. Claim 12 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shibayama and Chen in further view of Edwards and the prior art disclosed by applicant on page 4, lines 1-5 of the specification. Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shibayama and Chen in further view of Betzner. Claim 33 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Chen in view of Shibayama.

Claims 4, 8, 12, 15, and 33 all depend from claim 1. As described above, neither of the primary references Shibayama or Chen, either alone or in combination, teach or suggest "a moisture proof shield disposed to encapsulate the thermistor element and the positioning device, wherein the moisture proof shield comprises a surface energy enhancing material" as recited in claim 1.

Nimmerger is relied upon in the Office action as disclosing a thermistor probe assembly with a thermistor and lead wires connected to the thermistor and to conductor material for obtaining temperature measurements from the thermistor. Krohn is relied upon in the Office action as disclosing a thermostatic probe assembly having conductor material made of brass. Edwards is relied upon in the Office action as disclosing a temperature probe having a thermistor at a tip of the probe,

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and the prior art disclosed by applicant in the specification is directed to specific types of loctites. Betzner is relied upon in the Office action as disclosing the soldering of lead wires of a thermistor of a probe assembly to a conductor material.

Applicant submits that Nimberger, Krohn, Edwards and Betzner fail to add any substantive teaching or suggestion to either Shibayama or Chen regarding "a moisture proof shield disposed to encapsulate the thermistor element and the positioning device, wherein the moisture proof shield comprises a surface energy enhancing material" as recited in claim 1.

In view of the remarks and amendments set forth above, applicant respectfully requests allowance of the pending claims. If the Examiner has any questions regarding the present patent application, the Examiner can call Applicant's attorney, William Powell, at telephone number (518)-387-4530.

Respectfully submitted,

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